UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

60537 7590 10/01/2008 BRINKS HOFER GILSON & LIONE/MARVELL P.O. BOX 10395 CHICAGO. IL 60610 EXAMINER

PHAM, THIERRY L

ART UNIT PAPER NUMBER

2605

DATE MAILED: 10/01/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,160	08/27/2003	Douglas Gene Keithley	MP0976(13036/17	7056

TITLE OF INVENTION: IMAGE FORMING DEVICE AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	01/02/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This I appropriate. All further c indicated unless corrected maintenance fee notificati	form should be used for correspondence includir d below or directed oth	or transmitting the ISSI og the Patent, advance of nerwise in Block 1, by (JE FEE and PUBLICATI rders and notification of n a) specifying a new corres	ON FEE (if require maintenance fees with pondence address;	ed). Block II be maile and/or (b)	ks 1 through 5 sh led to the current of indicating a separ	ould be completed where correspondence address as ate "FEE ADDRESS" for
		ock I for any change of address)	Note Fee(pape	e: A certificate of m (s) Transmittal. This ers. Each additional	nailing car certificate paper, suc	n only be used for e cannot be used for the as an assignment or transmission	domestic mailings of the r any other accompanying t or formal drawing, must
60537	7590 10/01	/2008		Conti	Scata of Y	Mailing or Transcr	viction
P.O. BOX 10395 CHICAGO, IL 60		IONE/MARVELL	I her State addr trans	reby certify that this es Postal Service wi ressed to the Mail smitted to the USPT	Fec(s) Tr th sufficie Stop ISSU O (571) 27	ransmittal is being ent postage for first UE FEE address : 73-2885, on the da	deposited with the United class mail in an envelope above, or being facsimile te indicated below.
							(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	1.	ATTORNE	Y DOCKET NO.	CONFIRMATION NO.
10/650,160	08/27/2003		Douglas Gene Keithley		MP097	76(13036/17	7056
TITLE OF INVENTION:	IMAGE FORMING D	EVICE AND METHOD					
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE	FEE TO	OTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740	01/02/2009
EXAMI	NER	ART UNIT	CLASS-SUBCLASS	1			
PHAM, TH	IERRY L	2625	358-001200	•			
"Fee Address" indic PTO/SB/47; Rev 03-02 Number is required.	ndence address (or Cha /122) attached. cation (or "Fee Address or more recent) attach	nge of Correspondence Indication form ed. Use of a Customer	For printing on the p (1) the names of up to or agents OR, alternativ (2) the name of a single registered attorney or a 2 registered patent attor listed, no name will be	3 registered patent vely, e firm (having as a agent) and the name- meys or agents. If no printed.	nember a	2	
PLEASE NOTE: Unle recordation as set forth (A) NAME OF ASSIG	ess an assignee is ident in 37 CFR 3.11. Comp NEE	ified below, no assignee detion of this form is NO	THE PATENT (print or typ data will appear on the pa T a substitute for filing an : (B) RESIDENCE: (CITY	atent. If an assigner assignment. and STATE OR CO	OUNTRY))	
Please check the appropria	ate assignee category or	categories (will not be p	rinted on the patent):	Individual	poration o	or other private gro	ap entity Government
Advance Order - #	small entity discount p	permitted)	b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit can The Director is hereby overpayment, to Depo	d. Form PTO-2038 authorized to charg	is attached	d. ired fee(s), any def	
	SMALL ENTITY state	is. See 37 CFR 1.27.	☐ b. Applicant is no long				
interest as shown by the re	Publication Fee (if requeords of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other than to Office.	he applicant; a regisi	ered attori	ney or agent; or the	assignce or other party in
Authorized Signature _				Date			
Typed or printed name			Registration No				
This collection of informa an application. Confidenti submitting the completed this form and/or suggestio Box 1450, Alexandria, Vi Alexandria, Virginia 2231	tion is required by 37 C ality is governed by 35 application form to the ons for reducing this bur rginia 22313-1450. DC 3-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the O NOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv e Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 m idual case. Any con er, U.S. Patent and T D THIS ADDRESS.	e public w inutes to c iments on rademark SEND TO	which is to file (and complete, including the amount of tin Office, U.S. Depa D: Commissioner f	by the USPTO to process) gathering, preparing, and the you require to complete etiment of Commerce, P.O. or Patents, P.O. Box 1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 10/01/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/650,160	08/27/2003	Douglas Gene Keithley	MP0976(13036/17	7056	
60537	7590 10/01/2008		EXAMINER		
BRINKS HOFE	R GILSON & LIONI	PHAM, THIERRY L			
P.O. BOX 10395			ART UNIT	PAPER NUMBER	
CHICAGO, IL 60	610	2625			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 982 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 982 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/650,160 KEITHLEY, DOUGLAS GENE Notice of Allowability Examiner Art Unit THIERRY I PHAM 2625 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to amendment filed on 7/16/2008. The allowed claim(s) is/are 1-37. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) \(\subseteq \text{Some* c) \subseteq \text{None of the:} 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other .

/Dov Popovici/ Primary Examiner, Art Unit 2625

DETAILED ACTION

 This action is responsive to the following communication: amendment filed on 7/16/2008

· Claims 1-37 are now allowed.

Response to Arguments

Applicant's arguments, see pages 7-8, filed 7/16/2008 with respect to claims 1, 11, 18, and 28 have been fully considered and are persuasive. The prior arts rejection under U.S.C. 103(a) of claims 1, 11, 18, and 28 has been withdrawn.

Allowable Subject Matter

- Claims 1-37 are allowable over prior art of record.
- The following is an examiner's statement of reasons for allowance: The cited prior art Japan Paten No. 05167850A to Oikawa teaches a method for applying and comparing a predetermined memory pattern with a graphic pattern and wherein US Patent No. 6333998 to Matsumoto teaches a method for converting a multi-level digital image to bilevel image of black and white pixels using pseudo-halftone conversion method and wherein the resulting bi-level image may include a discontinuous line that was previously a fine line in the multilevel digital image, but the cited prior arts of record fail to teach and/or suggest "identifying a grid of pixels having a predetermined pattern of pixel values, the predetermined pattern optimized to minimize scattering of toner on a media caused by ventilation of gas and water vapor" and in combinations of other features as cited in independent claims 1, 11, 18, and 28.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THIERRY L. PHAM whose telephone number is (571)272-7439. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

Art Unit: 2625

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thierry L Pham/ Art Unit 2625

/Dov Popovici/ Primary Examiner, Art Unit 2625